

Additional two new species of the genus *Faristenia* Ponomarenko (Lepidoptera, Gelechiidae) from Japan

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Abstract Two new species of the gelechiid genus *Faristenia*, *F. hirowatarii* sp. n. and *F. nakatanii* sp. n., are described from Japan with figures of adults and genitalia.

Key words Gelechiidae, *Faristenia*, new species, Japan.

Introduction

The gelechiid genus *Faristenia* was proposed by Ponomarenko in 1991, and comprises 24 species in the world (Ponomarenko, 2009). The genus is characterized by the presence of hindwing hair pencils of the male (Ueda and Ponomarenko, 2000) and a tegumen with an inflated basal half in the male genitalia (Ponomarenko, 1997). In Japan, 10 described species and 1 unidentified species of the genus *Faristenia* have been recorded (Jinbo, 2004–2012).

In the course of the taxonomic study of the Japanese Gelechiidae, I have found 2 new species belonging to the genus *Faristenia* from Japan. In the present paper, I described the 2 new species with figures of the adults and genitalia of both sex.

The terminology of the genitalia is mainly derived from Ponomarenko (1991). The materials examined are deposited in the collection of the Entomological Laboratory, Osaka Prefecture University, Sakai (OPU) and Osaka Museum of Natural History, Osaka (OMNH).

Description

***Faristenia hirowatarii* sp. n.** (Figs 1, 2, 5, 7)

(hirowatari-shiro-nokomekibaga)

Forewing length: ♂, 5.6–6.9 mm; ♀, 5.7–7.2 mm.

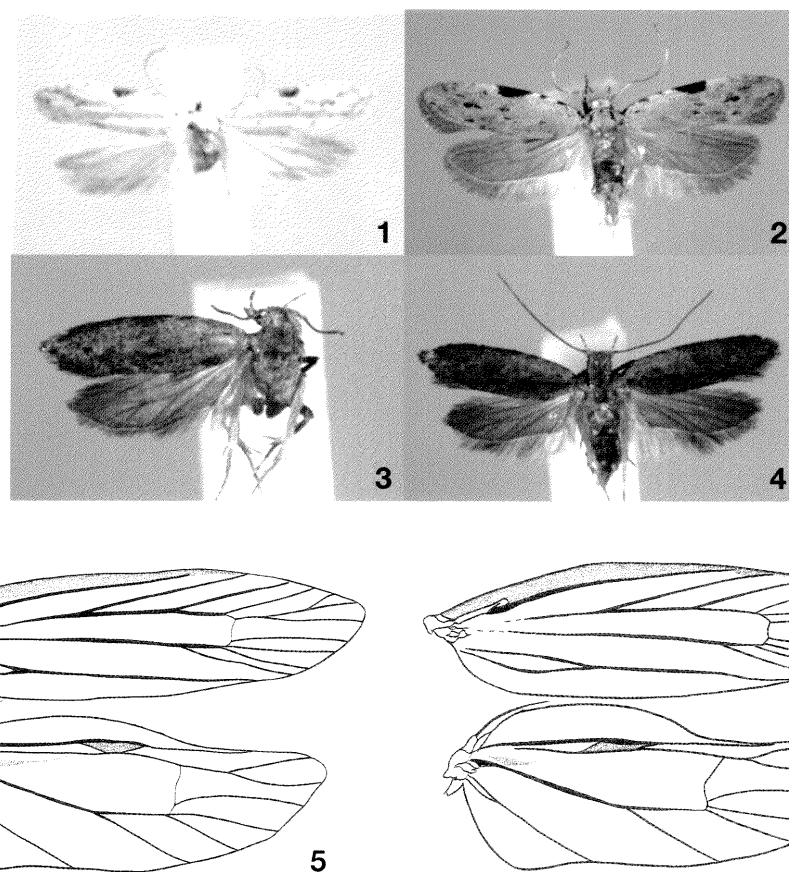
Head whitish, irrorated with pale fuscous. Antenna whitish, irrorated with pale fuscous, with fuscous annulation; scape white, scattered with pale fuscous. Labial palpus with dense trapezoidal scale tuft on under surface of 2nd segment; 2nd segment blackish, scattered with brown, apical 1/4 suffused with whitish; 3rd segment somewhat longer than 2nd, white with 3 blackish rings, 1st ring at

base, narrow, 2nd broad, beyond middle, 3rd at apical 1/3. Thorax white, with a blackish dot on posterior angle; lateral margin with blackish dots at posterior 1/4; tegula white. Legs fuscous scattered with pale ochereous; fore tibia with a pale ochereous ring at apex; fore tarsus with pale ochereous apical ring on each segment; mid tibia with 2 pale ochereous rings at middle and apex; mid tarsus irregularly suffused with pale ochereous, with ochereous apical ring on each segment; hind tibia suffused dorsally with pale ochereous hairs; hind tarsus suffused with pale ochereous broad apical ring on each segment. Forewing whitish, scattered with pale fuscous; a blackish dot on costa at base; costa with 5 fuscous marks, 1st and 2nd small at 1/8 and 1/4, 3rd large at middle, 4th and 5th narrow and directed obliquely outwards at 5/8 and 2/3; a fuscous dot on subcosta near base; a fuscous dot at 2/3; irregular fuscous streaks on plical fold; tornus somewhat suffused with pale fuscous; a series of fuscous dots on margin from apical 1/3 to tornus; cilia pale brownish gray. Hindwing light gray, irrorated with pale brownish gray; cilia pale brownish gray with ochereous base. Abdomen pale brownish gray.

Male genitalia (Fig. 7a–b). Uncus trapezoidal, with somewhat rounded posterior margin. Valva stout, slightly dilated distally, evenly curved dorsally, with rounded distal margin; ventral margin expanded ventrally into a small triangular plate from middle to before 2/3; a group of narrow bristles on ventral margin from 1/3 to middle. Valvella about 2/5 length of valva, slender, digitate, with dull-pointed apex. Juxta lobe short, with rounded apex. Aedeagus stout, inflated in basal 2/3; apex truncate.

Female genitalia (Fig. 7c). Apophysis posterioris about twice length of apophysis anterioris. Eighth segment sclerotized; tergite with rounded posterior margin;

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Figs 1–4. Adults. 1. *Faristenia hirowatarii* sp. n. holotype ♂. 2. *Faristenia hirowatarii* sp. n. paratype ♂. 3. *Faristenia nakatanii* sp. n. holotype ♂. 4. *Faristenia nakatanii* sp. n. paratype ♀. Figs 5–6. Wing venations. 5. *Faristenia hirowatarii* sp. n. 6. *Faristenia nakatanii* sp. n.

ventroanterior margin with a pair of large oblong pouches. Genital plate small, triangular; anterior corner produced anteriorly and connected with 8th sternal pouches. Ductus bursae rather short. Corpus bursae oval. Signum rather oblong, with dentate margin, with median triangular ridge.

Material examined. Holotype: ♂, [Honshu], Mt. Wasamata, Nara Pref., 24. VII. 1992, T. Hirowatari (Genitalia No. TU 712) (OPU). Paratypes. HONSHU: 1 ♀, Hikagedaira, Gifu Pref., 18–21. vii. 1981, K. Yasuda (OPU); 1 ♂, 1 ♀, Sannoko, Nara Pref., 18. VI. 1991, T. Ueda (OPU); 1 ♂, same locality, same data, T. Hirowatari (OPU); 1 ♀, same locality, same data, T. Hirowatari (Genitalia No. TU 169) (OPU); 1 ♂, Kitamata, Nara Pref., 16. VI. 1992, T. Ueda (Genitalia No. TU 118) (OPU); 1 ♀, same locality, same data, T. Ueda (OPU); 1 ♀, same locality, 24. VII. 1992, T. Hirowatari (OPU); 1 ♂, 1 ♀, same locality, 15. VI. 1993, T. Hirowatari (OPU); 1 ♀, same locality, 15. VI. 1993, T. Ueda (Genitalia No. TU 172) (OPU); 1 ♂, Mt.

Wasamatayama, Nara Pref., 24. VII. 1992 ex *Lindera umbellata* em. 19. VI. 1992, T. Ueda (OPU); 5 ♂, 1 ♀, same data as holotype; 2 ♂, same locality, 24. VII. 1992, T. Ueda (OPU); 8 ♂, 1 ♀, same locality, 13. VII. 1996, T. Ueda (OPU); 17 ♂, 35 ♀, Mt. Misen, Nara Pref., 11. VII. 1996, T. Ueda (Genitalia No. TU 565 – TU 568) (OPU). KYUSHU: 1 ♀, Mt. Hikosan, Fukuoka Pref., 18. VI. 1962, T. Kawamura (OPU); 1 ♂, same locality, 3. VI. 1981, I. Kanazawa (Genitalia No. TU 183) (OMNH); 1 ♀, same locality, same data, I. Kanazawa (OMNH).

Distribution. Japan (Honshu, Kyushu).

Biology. Host plant and immature stage are unknown. A pupa was collected from *Lindera umbellata* Thunb. (Lauraceae) at Mt. Wasamatayama, Nara Pref.

Remarks. *F. hirowatarii* sp. n. is superficially similar to *F. kanazawai* Ueda & Ponomarenko, 2000, but distinguished from the latter by having long bristles on the ventral margin

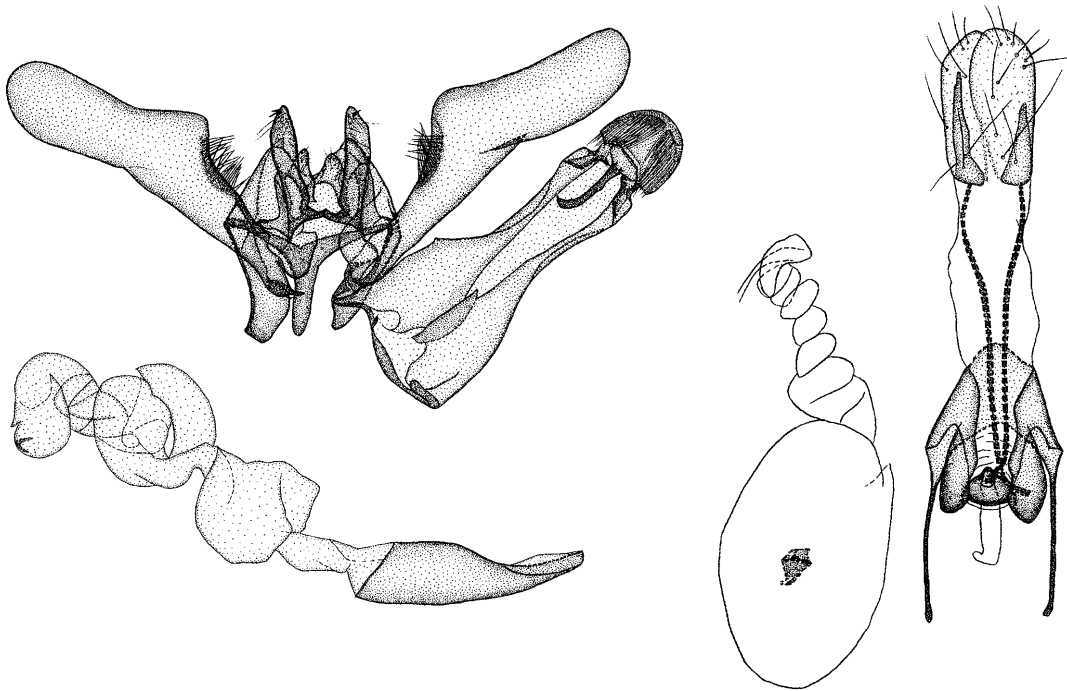


Fig. 7. Genitalia of *Faristenia hirowatarii* sp. n. A: Male genitalia with aedeagus removed; B: Aedeagus; C: Female genitalia.

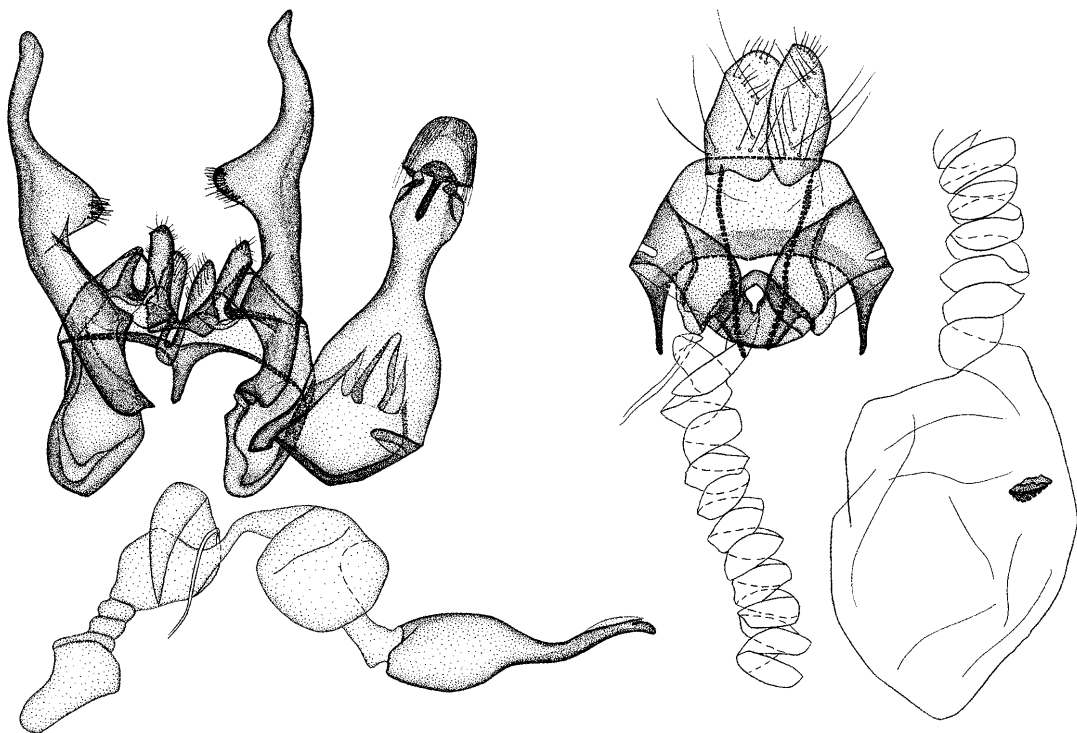


Fig. 8. Genitalia of *Faristenia nakatanii* sp. n. A: Male genitalia with aedeagus removed; B: Aedeagus; C: Female genitalia.

of the valva and a tapered valvella with no plate on the ventral surface. The forewing color has individual variation. The forewing coloration of the holotype is evenly white, but in many specimens, the forewing is irregularly tinged with pale fuscous. The female genitalia are similar to those of *F. furtumella* Ponomarenko, 1991, but separable from the latter by the large oblong pouch on the ventroanterior margin and the triangular genital plate.

***Faristenia nakatanii* sp. n.** (Figs 3, 4, 6, 8)

(minami-nokomekibaga)

Forewing length: ♂, 5.6–6.0 mm; ♀, 5.6–6.3 mm.

Head dark brownish gray, irrorated with whitish gray. Antenna dark brownish gray, mixed with whitish gray, with fuscous annulations; scape fuscous, scattered with whitish. Labial palpus with dense triangular scale tuft on under surface of 2nd segment; 2nd segment fuscous, scattered with brown, dorsoapical margin irrorated with white; 3rd segment almost equal to length of 2nd, whitish, with 3 fuscous rings: 1st narrow, near base, 2nd moderate, just beyond middle, 3rd broadly suffused at apical 1/3. Thorax dark brownish gray, irrorated with whitish gray, with 2 fuscous dots on posterior angle; tegula dark brownish gray, irrorated with whitish gray. Legs fuscous, irrorated with ochereous; fore tibia with median narrow ochereous rings; fore tarsus with apical ochereous ring; mid tarsus with ochereous apical ring on each segment; hind tibia suffused dorsally with short pale ochereous hair-like scales; hind tarsus with whitish apical ring on each segment. Forewing ground color dark brownish gray, irrorated with whitish gray; costa broadly sprinkled with whitish gray from base to before middle and margined with fuscous beyond middle; 2 obscure narrow fuscous short streaks at 1/6 and 1/4; cilia dark brownish gray. Hindwing pale brownish gray, scattered with ochereous; veins darker than ground color; cilia pale brownish gray with ochereous base.

Male genitalia (Fig. 8a–b). Uncus trapezoidal with short setae on posterior margin. Valva stout, tapered distally, slightly curved ventrally; apical portion curved dorsally; ventral margin expanded ventrally into a triangular plate bearing bristles on ventral margin from middle to 2/3; distal margin bluntly pointed. Valvella about 1/4 length of valva, digitate. Juxta lobe digitate, with blunt-pointed apex. Saccus short. Aedeagus with inflated basal half; distal half rather slender; apex truncate.

Female genitalia (Fig. 8c). Apophysis posterioris about 2.5 times length of apophysis anterioris. Eighth segment sclerotized; ventroanterior margin with a pair of small pouches. Genital plate pentagonal; lateral angle produced laterally into a small process. Antrum long, tubular. Ductus

bursae long. Corpus bursae oval. Signum flattened, furrowed centrally.

Material examined. Holotype: ♂, Japan, Ryukyus, Okinawa Pref., Kunigami Vill., Yona, 21–25. V. 1993, Y. Nakatani (Genitalia No. TU 673; Wing Preparation No. TUW 113) (OPU). Paratypes. KYUSHU: 1 ♀, Chuo-rindo, Amamioshima Is., Kagoshima Pref., 2. V. 1998, Y. Nasu (OPU); 1 ♀, Ukenson, Amamioshima Is., Kagoshima Pref., ex *Distylium racemosum* em. 13. V. 1996, Y. Nasu (OPU). RYUKYUS: 2 ♂, 4 ♀, same date as holotype (genitalia No. TU 675) (OPU); 1 ♀, same locality as holotype, 15–18. V. 1998, T. Ueda (OPU).

Distribution. Japan (Kyushu, Ryukyus).

Biology. Host plant: *Distylium racemosum* Sieb. et Maxim. (Hamamelidaceae).

Remarks. *F. nakatanii* sp. n. is superficially similar to *F. mukurossivora* Ueda & Ponomarenko, 2000, but is distinguishable from the latter by the lack of distinct marks on the forewing. The male genitalia of this new species differ from congeners in the tapered valva. The female genitalia also differ from those of the others in the pentagonal genital plate.

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摘 要

日本産 *Faristenia* 属の2新種の追加（鱗翅目，キバガ科）（上田達也）

Ueda and Ponomarenko (2000) は日本から *Faristenia* 属の2新種を記載したが、その後さらに2新種を認めたので成虫、交尾器を図示するとともに、記載を行った。

Faristenia hirowatarii sp. n. ヒロワタリシロノコメキバガ (Figs 1, 2, 5, 7)

前翅長 5.5–7.5mm. 頭部, 胸部, 前翅地色は白色で淡褐色鱗粉を散布する。前翅前縁に5つの黒色の斑紋を持ち、中央のものは大きい。前翅2/3に黒色斑を持つ。♂交尾器の valva 中央部は腹方に三角形に張り出し、その前方に剛毛列を持つ。♀交尾器の apophysis posterioris は apophysis anterioris の

約2倍の長さ。交尾口周辺は三角形の硬化板になる。ニセクロモンノコメキバガ *Faristenia kanazawai* Ueda & Ponomarenko, 2000 に似るが valva に剛毛列を持つことで識別できる。分布：本州, 九州。寄主植物：不明。

Faristenia nakatanii sp. n. ミナミノコメキバガ (Figs 3, 4, 6, 8)

前翅長 5.5–6.5mm. 頭部, 胸部, 前翅は暗灰褐色。前翅前縁中央から翅端にかけて暗褐色に縁取られる。♂交尾器の valva は先端に向かって細くなり、先端部は背方に曲がる。Valva 中央から 2/3 は三角形の板状に腹方に張り出し、剛毛列を持つ。♀交尾器の apophysis posterioris は apophysis anterioris の約 2.5 倍の長さ。交尾口周辺は五角形の硬化板になる。ムクロジハオリノコメキバガ *Faristenia mukurossivora* Ueda & Ponomarenko, 2000 に似るが、前翅に顕著な斑紋を持たないことから識別は容易。♂交尾器では先細りになる valva により、♀交尾器では交尾口周辺が五角形の硬化板になることで、他の日本産 *Farsitenia* 属の種との識別は容易。分布：九州（奄美大島）、琉球。寄主植物：イヌノキ。

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